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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,814	03/27/2007	Hubert Zangl	FRZ-114US	4015
23122	7590	08/28/2007		
RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			EXAMINER NGUYEN, VINCENT Q	
			ART UNIT 2858	PAPER NUMBER
			MAIL DATE 08/28/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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**Office Action Summary**

Application No.

10/588,814

Applicant(s)

ZANGL ET AL.

Examiner

Vincent Q. Nguyen

Art Unit

2858

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/09/2006</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Objection***

Regarding claim 10, lines 2 and 4, the phrase "can be" renders the claim confusing since whether the limitations follow the phrase are part of the claim or not. For the purpose of examination, examiner assumes that all electrode configuration "can be" shifted and "can be" adapted.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (4,752,727) in view of Bossen et al. (5,944,955).

With respect to claims 1-3, 5, 7-17, Schneider discloses a method and device for determining parameters of a fluctuating stream of fluid in a pipe (50) using at least three electrodes (16', 16", 18' 20') provided at the periphery of the stream in spaced relationship to each other in the direction of flow, comprising the steps of providing a voltage signals (12) are fed to a first transmitting electrode (16') configuration located upstream and to a second transmitting electrode configuration (16") situated

downstream thereof and signals (18', 18", 20', 20") received at a receiving electrode configuration that is located between the transmitting electrodes (16', 16") are registered by means of dielectric currents (Elements 32', 34") and are subjected to a time-discrete cross correlation (58', 60", 58"), from the results of which the transit times of the fluctuations detected by the electrodes (16', 16") are determined.

The only difference between Schneider and the claimed invention is that the claimed invention recites the steps of providing an AC voltage signal in place of a voltage source (12), which Schneider does not explicitly disclose whether it is an AC voltage signal.

Bossen et al. discloses a system (Figure 4A) similar to that of Schneider and discloses the step of providing an AC signal (Element 25) to eliminate DC off-set (Bossen et al.'s col. 15, lines 51-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the AC signal as taught by Bossen et al. into the system of Schneider because Bossen et al. taught that the: "Signal generator 25 provides a waveform signal it may be implemented in a variety of ways and typically includes a crystal oscillator for generating a sine wave signal and a phase lock loop for signal stability. One advantage to using an AC signal as opposed to a DC signal is that it may be AC coupled to eliminate DC off-set." (Bossen et al. 's col. 15, lines 51-58).

With respect to claim 4, Schneider does not disclose at least one first transmitting electrode (16') configuration has a plurality of single electrodes distributed around the periphery of the stream.

Bossen et al. discloses a system similar to that of Schneider and discloses transmitting electrode configuration has a plurality of single electrodes (Figures 4A, 6A) for the purpose of enhancing the sensor when the material residing between the electrodes (Bossen et al.'s col. 14 to col. 15 lines 1-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the plurality electrode as taught by Bossen into the system of Schneider because using plural sensor enhances the signals to the sensor when the sample under test is between the electrodes (Bossen et al.'s col. 14 to col. 15 lines 1-8).

With respect to claim 6, Schneider discloses a velocity-distribution profile is determined from the transit times of the fluctuations between the electrodes by means of back projection (Col. 7 lines 55-68).

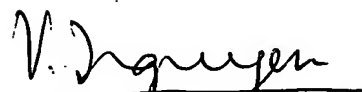
#### ***Contact Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Q. Nguyen whose telephone number is (571) 272-2234. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2858

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
August 20, 2007

Vincent Q. Nguyen  
Primary Examiner  
Art Unit 2858